In the Specification:

At page 6, lines 8-9, delete "to obtain an optimized delivery vehicle or component".

At page 31, line 27, change "Error! Reference source not found." with --Figures 4A and 4B--.

At page 48, line 13, change "_____" to -- 09/247,890--.

At page 48, line 14, delete "as TTC Attorney Docket No. 18097-028710US".

At page 48, line 21, change "_____" to -- 09/248,716--.

At page 48, line 22, delete "as TTC Attorney Docket No. 18097-030300US".

At page 48, line 26, change "_____" to -- 09/247,888--.

At page 48 , line 27, delete "as TTC Attorney Docket No. 18097-030100US".

At page 58, after line 22, insert --A portion of the disclosure of this patent document contains material which is subject to copyright protection. The copyright owner has no objection to the facsimile reproduction by anyone of the patent document or the patent disclosure, as it appears in the Patent and Trademark Office patent file or records, but otherwise reserves all copyright rights whatsoever. --

In the Claims:

Please amend claims 18 and 24 as follows:

18. (Once amended) A method for obtaining an optimized cell-specific binding moiety useful for increasing uptake, efficacy, or specificity of a [genetic] vaccine or antigen for a target cell, the method comprising:

(1) recombining at least first and second forms of a nucleic acid that comprises a polynucleotide which encodes a [non-toxic receptor] binding moiety of an enterotoxin, wherein the first and second forms differ from each other in two or more nucleotides, to produce a library of recombinant nucleic acids;

(2) transfecting vectors that contain the library of nucleic acids into a population of host cells, wherein the nucleic acids are expressed to form recombinant cell-specific binding moiety polypeptides;

(3) contacting the recombinant cell-specific binding moiety polypeptides with a cell surface receptor of a target cell; and

(4) determining which recombinant cell-specific binding moiety polypeptides exhibit enhanced ability to bind to the target cell.

24. (Once amended) A method of obtaining a genetic vaccine component that confers upon a vector an enhanced ability to enter an antigen-presenting cell, the method comprising:

creating a library of recombinant nucleic acids by subjecting to recombination at least two forms of a polynucleotide;

contacting a library of vectors, each of which comprises a member of the library of recombinant nucleic acids, with a population of antigen-presenting or antigen-processing cells; and

identifying vectors that enter a higher percentage of target cells than a control vector that does not contain the recombinant nucleic acids [determining the percentage of cells in the population that contain the vector].

Please add the following new claims 51-58:

51. (New) A method for obtaining an optimized recombinant cell-specific binding moiety polypeptide useful for increasing uptake, efficacy, or specificity of a vaccine antigen by a target cell, the method comprising:

(1) recombining at least first and second forms of a nucleic acid that comprises a polynucleotide which encodes a cell-specific binding moiety polypeptide, wherein the first and second forms differ from each other in two or more nucleotides, to produce a library of recombinant nucleic acids;

(2) transfecting vectors that contain the library of nucleic acids into a population of host cells, wherein the nucleic acids are expressed to form recombinant cell-specific binding moiety polypeptides;

(3) contacting the recombinant cell-specific binding moiety polypeptides with a cell surface receptor of a target cell; and

(4) determining which recombinant cell-specific binding moiety polypeptide exhibits enhanced ability to bind to the cell surface receptor of the target cell to obtain an optimized recombinant cell-specific binding moiety polypeptide.

52. (New) The method of claim 51, wherein each recombinant cell-specific binding moiety polypeptide is expressed as a fusion protein on the surface of a replicable genetic package.

53. (New) The method of claim 51, wherein each recombinant cell-specific binding moiety polypeptide is fused or linked to the vaccine antigen.

54. (New) The method of claim 51, wherein the target cell is selected from the group consisting of muscle cells, monocytes, dendritic cells, B cells, Langerhans cells, keratinocytes, M-cells, liver cells and epithelial cells.

55. (New) The method of claim 51, wherein the cell surface receptor is present on the surface of a target cell.

56. (New) The method of claim 51, wherein the cell-specific binding moiety comprises a polypeptide selected from the group consisting of CD2, CD28, CTLA-4, CD40 ligand, fibrinogen, ICAM-1, Fc portion of immunoglobulin G, and a bacterial enterotoxin or a subunit thereof.

57. (New) A method for enhancing the uptake, efficacy, or specificity with which a vaccine antigen is taken up by a target cell, said method comprising coating the vaccine antigen with an optimized recombinant cell-specific binding moiety polypeptide produced by the method of claim 51.